

جامعة الفيوم كلية الزراعة قسم علوم وتكنولوجيا الأغذية



Production and Evaluation of dried Lentil soup and Bissarah

Riham H. Abdel-Ghani; <u>Samah A. Abd-El tawab</u> and Awad A. Mahmoud
Food Science and Technology Department, Faculty of Agriculture, Fayoum University,
Fayoum, Egypt

Article No.: 7 مشترك ومقبول للنشر في مجلة Impact Factor: Local

Abstract

The aim of this study was to produce an evaluation of Lentil soup and Bissarah as precooked foods could be prepared in a few minutes. Shifting to the results, it was reported that dried lintel soups and Bissarah had high protein content (24.07 and 21.75 %). Potassium is the most predominant elements with values of 797 mg/100g in dried lentil soup and 546 mg/100g in Bissarah. HPLC technique showed that the Lentil soup and Bissarah were rich in amino acid content as leucine, lysine, and arginine, as well as glutamic and aspartic acids as non-essential amino acids. The results showed that the Bissarah extract had higher total phenolic content than Lentil soup extract. Gallic acid, Pyrogallol, Vanillin were detected to be the major phenolic components in Bissarah extract meanwhile, Pyrogallol was predominant in Lentil soup extract. Bissarah and Lentil soup have good sources of antioxidant agents, which its extracts had the lowest value of IC50 was 1.2 and 0.77mg/m, respectively. Antinutritional factors as phytic acid were reduced in the end product, as a result of cooking and heat treatment. During the storage period for six months, there are no remarkable changes in all of the chemical constituents in both of dried lintel soup and Bissarah. As well these products were characterized by high microbiological quality where the number of microbes and detection of aflatoxins are within the Egyptian standard specifications values. Sensory evaluation was acceptable for both lentil soup and Bissarah. Therefore, from the obvious results, it could be recommended that publishing the importance of these food products (dried lintel soups and Bissarah) as a food rich in minerals, fibers, phenols, and antioxidants, at the same time an easy to prepare and inexpensive food. Key words: Legumes, Phenolic components, Antioxidant activity.

عميد الكلية

رئيس مجلس القسم

أ.د/ منى عبد

أ.د/ عوض عبد التواب محمود

التواب الخشاب